REMARKS

An Office Action was mailed on May 25, 2005. The present response is being filed timely, to which any extension fees may be charged to Deposit Account 50-1290.

A prior response was filed today, but it was noticed that certain mathematical symbols did not print properly. This response corrects this deficiency by substituting the meaning of the symbols in plain English.

After a preliminary amendment, which cancelled claims 1-7 and a restriction requirement, to which claims 9-11, claim 8 is the sole claim pending.

By the foregoing, claim 8 is amended.

Claim 8 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,607,240 to Kajihara et al. (Kajihara). Claim 8 also stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,655,617 to Yasui et al. (Yasui).

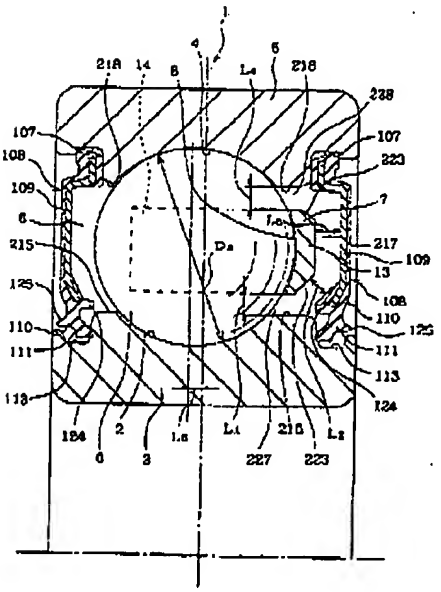
Claim 8 now recites that "*an inner peripheral surface of the outer peripheral edge of the seal plate is inclined radially outward in the axially inner direction*" and that the relation of the radial size of the radially inner annular gap and the diameter of the balls is "*$1.5L_1$ is substantially equal to $0.09D_4$*". Support thereof may be found in at least Fig. 44 and the specification on page 52, lines 2 -9, respectivcly.

Neither Kajihara nor Yasui, alone or in combination with each other or in combination with the other cited art, teach, disclose or suggest the presently claimed structure.

As now claimed, claim 8 recites the shape of the inner peripheral surface of the seal plate or more specifically "*an inner peripheral surface of the outer peripheral edge of the seal plate is inclined radially outward in the axially inner direction*". Support thereof may be found at least in Fig. 44 and the specification at pg. 46 lines 16 et al. and in particular at pg. 47, line 1 et al.

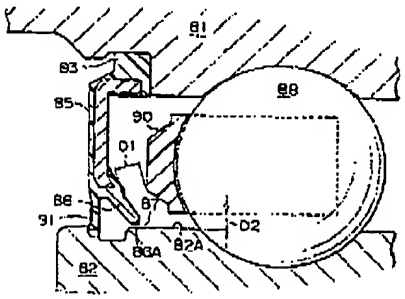
As shown in Fig. 44 (reproduced below), an inner peripheral surface of the outer peripheral edge portion of the seal plate is inclined radially outward in the axially inner direction. Advantageously, controlling the size of the annular gaps allows grease to easily pass through the annular gaps. This effect is strengthened by the above inclined inner peripheral surface of the outer peripheral edge portion of the seal plate.

Fig. 44



Figs. 3 and 5 of Kajihara are cited as anticipating the present invention. In relation to Fig. 5 (reproduced below), Kajihara teaches a bearing sealing device having a seal portion 86, which in turn has an opposite surface 86A. Surface 86A forms a passage 87 that allows air to pass easily therethrough, but not oil or as specifically stated "*allows oil to hardly pass therethrough . . .*" Col. 9, lines 34 et al. This arrangement is directly opposite to the presently claimed structure where oil and grease are readily allowed to pass. In fact, Kajihara goes on to describe an experiment to determine grease leak. Kajihara reports in Table that the leak was minimal.

Fig. 5



Accordingly, the Examiner is respectfully requested to withdraw the rejection with respect to Kajihara for this reason alone.

In relation to Fig. 3, Kajihara teaches a retainer 61 having a projection 63 disposed from a radial inner portion. Projection 63 forms a narrow passage 65, which Kajihara teaches "allows air to pass easily, but it allows grease to pass therethrough." Col. 8, lines 18-32. Clearly, Kajihara finds it beneficial to build a ball bearing that prevents grease from moving axially outward.

Fig. 4 of Yasui is cited as an example of a similar structure. A retainer 14 has an annular projection 23 that creates "*a small gap*" 22 between projection 23 and the inner circumferential surface 21. Col. 3, lines 9-15. Yasui goes on to describe at col. 4, lines 52 et al. that small gap 22 prevents grease flow axially outward so that leakage is avoided.

In both references, a projection projects radially inwardly from an inner radial portion of the retainer is provided so as to form the narrow passage between the inner radial portion of the retainer and the outer peripheral surface of the inner ring.

In the presently claimed invention, the annular gaps are controlled such that it becomes difficult for the grease on the inside of the retainer to be blocked as it flows through the ring-shaped gaps to the outer side of the retainer. Thereto, it is now claimed that he relation of the radial size of the radially inner annular gap and the diameter of the balls is "$1.5L_1$ *is substantially equal to* $0.09D_4$". Neither, Kajihara, Yasui, alone nor in any combination with the other cited art, teach, disclose or suggest the claimed relation nor the claimed ball bearing.

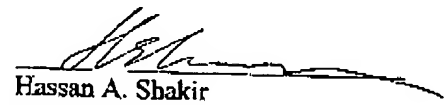
Accordingly, the Examiner is respectfully requested to withdraw the rejection with respect to Kajihara and Yasui.

For the reasons given, the Examiner is respectfully requested to withdraw the rejections and pass the case to allowance.

Applicant has fully responded to each matter of substance raised in the Office Action and believes that the case is in condition for allowance. Passage of the application to allowance is therefore courteously solicited. Should the Examiner have any requests, questions or suggestions, the Examiner is invited to contact Applicant's attorney at the number listed below.

Any fee due with this paper, including any necessary extension fees, may be charged to Deposit Account 50-1290.

Respectfully submitted,



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